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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/998,489

11/30/2001

Matt Hayck

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09/07/2004

MOTOROLA INC

600 NORTH US HIGHWAY 45

ROOM AS437

LIBERTYVILLE, IL 60048-5343

EXAMINER

PEREZ GUTIERREZ, RAFAEL

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/998,489

Applicant(s)

Hayek et al.

Examiner

Rafael Perez-Gutierrez

Art Unit

2686

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 June 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 1-10.Claim(s) objected to: 12.Claim(s) rejected: 11 and 13-25.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

Continuation of 5. does NOT place the application in condition for allowance because of the following reasons:

Regarding claim 11, Applicant argues on page 3 of the remarks, that Atkinson does not disclose or suggest that the voltage controlled oscillator has a frequency outside a bandwidth of received signal harmonics.

The Examiner respectfully disagrees with Applicant's argument because Atkinson does suggest to a person of ordinary skill in the art that the frequency of the VCO 38 can be outside a bandwidth of received signal harmonics when he discloses that the frequency of the VCO is not harmonically related to the input RF signal (i.e., received signal) in order to minimize any effect in VCO 38 from a potential coupling of the received signal (paragraph 0020) (emphasis added). It becomes clear from this teaching that received signal harmonics in the bandwidth of the input RF signal would interfere with the operation of VCO 38.

Regarding claims 13, 14, and 18, Applicant argues, on pages 3-5 of the remarks, that certain limitations (i.e., the frequency divide ratio  $q$  being greater or equal than one) recited in the above-mentioned claims are not taught by Atkinson.

However, the Examiner respectfully disagrees with Applicant's argument because Atkinson's disclosure clearly suggests to one of ordinary skill in the art to select the frequency divide ratio such that the received signal is mixed at a local oscillator frequency outside a bandwidth of a fundamental frequency of the received signal (e.g., outside a channel bandwidth) or a local oscillator frequency derived from a VCO frequency that is outside a bandwidth of the  $n$ th harmonic of the received signal (see page 2 paragraphs 0019 and 0020).

Regarding claims 15-17, Applicant argues, on pages 6 and 7 of the remarks, that certain limitations (i.e., determining the signal strength of a received signal at a wireless device and increasing a gain of the received signal before mixing if the gain of the received signal is below a gain threshold) recited in the above-mentioned claims are not taught by Atkinson in view of Freed.

However, the Examiner respectfully disagrees with Applicant's argument because Freed clearly discloses the limitations argued by the Applicant in the abstract and in column 2 line 20 - column 3 line 26. For example, Freed clearly discloses in such citations the steps of determining the signal strength of a received signal at a wireless device and increasing a gain of the received signal before mixing if the gain of the received signal is below a gain threshold.

Regarding claims 19 and 25, Applicant argues, on pages 8 and 9 of the remarks, that Arpaia et al. do not teach mixing the received signal a mixer injection frequency outside the passband of the pre-selection filter.

The Examiner respectfully disagrees with Applicant's argument because Arpaia et al. clearly disclose in column 4 line 47 - column 5 line 3 that the mixer injection frequency, by means of the switching oscillator, is outside of the passband of the pre-selection filter.

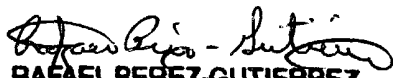
Regarding claims 20 and 21, Applicant argues, on page 10 of the remarks, that certain limitations recited in the above-mentioned claims are not taught by Arpaia et al. in view of Freed.

However, the Examiner respectfully disagrees with Applicant's argument because Freed clearly discloses the limitations argued by the Applicant in the abstract and in column 2 line 20 - column 3 line 26. For example, Freed clearly discloses in such citations the steps of determining the signal strength of a received signal at a wireless device and increasing a gain of the received signal before mixing if the gain of the received signal is below a gain threshold.

Regarding claims 22 and 23, Applicant argues, on pages 11 and 12 of the remarks, that certain limitations (i.e., the frequency divide ratio  $q$  being greater or equal than one) recited in the above-mentioned claims are not taught by Arpaia et al. in view of Atkinson.

However, the Examiner respectfully disagrees with Applicant's argument because Atkinson's disclosure clearly suggests to one of ordinary skill in the art to select the frequency divide ratio such that the received signal is mixed at a local oscillator frequency outside a bandwidth of a fundamental frequency of the received signal (e.g., outside a channel bandwidth) or a local oscillator frequency derived from a VCO frequency that is outside a bandwidth of the  $n$ th harmonic of the received signal (see page 2 paragraphs 0019 and 0020).

Therefore, in view of the above reasons and having addressed each of Applicant's arguments, the final rejection is maintained by the Examiner.

  
RAFAEL PEREZ-GUTIERREZ  
PATENT EXAMINER

8/26/04

  
8/1/04  
LESTER G. KINCAID  
PRIMARY EXAMINER